

### Abstract

The present invention relates to a method and apparatus for manufacturing plastic optical transmission medium. The subject method and apparatus can produce a variety of optical transmission medium, including for example, graded refractive index polymer optical fiber, graded refractive index rod lens, and step index polymer optical fiber. The subject optical transmission medium have improved characteristics and efficiency, due, at least in part, to better control of the profile of the refractive index distribution and stable high temperature operation of the medium. High efficiency of manufacturing can be achieved by the subject method and apparatus which can permit continuous extrusion at high speed.